AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (Currently Amended) A method of distributing routing information comprising:

processing lower layer protocol topology information received at a router on a first subnetwork, the topology information including a set of nodes on the first subnetwork and a ~~a~~subset of the nodes that are lower layer protocol next-hop neighbors to the router; and

forming higher layer protocol adjacencies with the subset of nodes based on the processed lower layer topology information for the flooding of higher layer routing information among the set of nodes on the subnetwork;

receiving updated lower layer protocol topology information;

processing the updated lower layer protocol topology information; and

changing the higher layer protocol adjacencies based on the processed updated lower layer protocol topology information.

22. (Currently Amended) The method of claim 21 further comprising:

generating, for the higher layer protocol, routing information describing the set of nodes on the subnetwork based upon the processed lower-layer topology information; and

advertising, using the higher layer protocol, the generated routing information to at least one node located on a second subnetwork~~.~~;

generating, for the higher layer protocol, updated routing information based on the processed updated lower layer protocol topology information; and

advertising using the higher layer protocol, the generated updated routing information to at least one node located on the second subnetwork.

23. (Previously presented) The method of claim 22 wherein the higher layer protocol is compatible with OSPF at the second subnetwork.

24. (Previously presented) The method of claim 21 wherein the higher layer protocol is an Internet routing Protocol.

25. (Previously presented) The method of claim 21 wherein the higher layer protocol includes the topology information used by OSPF.

26. (Previously presented) The method of claim 21 wherein the first subnetwork is a radio network.

27. (Previously presented) The method of claim 21 wherein nodes of the first subnetwork are in communication with each other using a first transmission medium, the first subnetwork is in communication with a second subnetwork using a second transmission medium, and wherein the first transmission medium has a lower bandwidth than the second transmission medium.

28. (Previously presented) The method of claim 21, wherein the nodes on the first subnetwork are mobile.

29. (Previously presented) A system for distributing routing information comprising:

a plurality of nodes in communication with one another via a first transmission medium forming a first subnetwork;

a lower layer protocol for generating lower layer protocol topology information at a router within the first subnetwork including a set of nodes on the first subnetwork and a subset of the nodes that are lower layer protocol next-hop neighbors to the router; and

a processor for processing the lower layer protocol topology information to provide the topology information to a higher layer protocol, wherein the higher layer protocol forms higher layer protocol adjacencies with the nodes in the subset based on the processed lower layer topology information for the flooding of higher layer routing information among the set of nodes on the subnetwork.

30. (Previously presented) The system of claim 29 wherein the processor further generates, for the higher layer protocol, routing information describing the set of nodes on the subnetwork based upon the processed lower-layer topology information, the system further comprising:

a second transmission medium connecting the first subnetwork to a second subnetwork; and

an advertiser for advertising, using the higher layer protocol, the generated routing information to at least one node located on the second subnetwork.

31. (Previously presented) The system of claim 30 wherein the first transmission medium has a lower bandwidth than the second transmission medium.

32. (Previously presented) The system of claim 30 wherein the higher layer protocol is compatible with OSPF at the second subnetwork.

33. (Previously presented) The system of claim 29 wherein the higher layer protocol includes the topology information used by OSPF.

34. (Previously presented) The system of claim 29 wherein the first subnetwork is a radio network.

35. (Previously presented) The system of claim 29 wherein the first subnetwork is in communication with a second subnetwork using a second transmission medium, and wherein the first transmission medium has a lower bandwidth than the second transmission medium.

36. (Previously presented) The system of claim 29 wherein the nodes on the first subnetwork are mobile.

37. (Previously presented) A router comprising:

a lower layer protocol module for processing lower layer protocol topology information received at the router corresponding to a first subnetwork on which the router resides, the topology information including a set of nodes on the first subnetwork and a subset of the nodes that are lower-layer protocol next-hop neighbors to the router; and

a higher layer protocol module for forming higher layer protocol adjacencies with the subset of nodes based on the processed lower-layer topology information for the flooding of higher layer routing information among the nodes on the first subnetwork.

38. (Previously presented) The router of claim 37 wherein the higher layer protocol module further generates, for the higher layer protocol, routing information describing the set of nodes on the first subnetwork based upon the processed lower-layer topology information, and advertises, using the higher layer protocol, the generated routing information to at least one node located on a second subnetwork.

39. (Previously presented) The router of claim 38 wherein the higher layer protocol is compatible with OSPF at the second subnetwork.

40. (Previously presented) The router of claim 38 wherein the first transmission medium has a lower bandwidth than the second transmission medium.

41. (Previously presented) The router of claim 37 wherein the higher layer protocol is an Internet routing Protocol.

42. (Previously presented) The router of claim 37 wherein the higher layer protocol includes the topology information used by OSPF.

43. (Previously presented) The router of claim 37 wherein the first subnetwork is a radio network.

44. (Previously presented) The router of claim 37 wherein nodes of the first subnetwork are in communication with each other using a first transmission medium, the first subnetwork is in communication with a second subnetwork using a second transmission medium, and wherein the first transmission medium has a lower bandwidth than the second transmission medium.

45. (Previously presented) The router of claim 37 wherein the nodes on the first subnetwork are mobile.

46. (Currently Amended) Computer executable software code stored in a computer readable medium, which upon execution carries out a method of distributing routing information comprising:

processing lower layer protocol topology information received at a router on a first subnetwork, the topology information including a set of nodes on the first subnetwork and a ~~a~~ subset of the nodes that are lower layer protocol next-hop neighbors to the router; and

forming higher layer protocol adjacencies with the ~~the~~ subset of nodes based on the processed lower layer topology information for the flooding of higher layer routing information among the nodes on the subnetwork~~.~~;

receiving updated lower layer protocol topology information;

processing the updated lower layer protocol topology information; and

changing the higher layer protocol adjacencies based on the processed updated lower layer protocol topology information.

47. (Currently Amended) The computer executable software code of claim 46 which upon execution, the method further comprises:

generating, for the higher layer protocol, routing information describing the set of nodes on the subnetwork based upon the processed topology information; and

advertising, using the higher layer protocol, the generated routing information, to at least one node located on a second subnetwork~~.~~;

generating, for the higher layer protocol, updated routing information based on the processed updated lower layer protocol topology information; and

advertising using the higher layer protocol, the generated updated routing information to at least one node located on the second subnetwork.

48. (Previously presented) The computer executable software code of claim 47 wherein the higher layer protocol is compatible with OSPF at the second subnetwork.

49. (Previously presented) The computer executable software code of claim 47 wherein nodes of the first subnetwork are in communication with each other using a first transmission medium, the first subnetwork is in communication with the second subnetwork using a second

transmission medium, and wherein the first transmission medium has a lower bandwidth than the second transmission medium.

50. (Previously presented) The computer executable software code of claim 46 wherein the higher layer protocol is an Internet routing protocol.

51. (Previously presented) The computer executable software code of claim 46 wherein the higher layer protocol includes the topology information used by OSPF.

52. (Previously presented) The computer executable software code of claim 46 wherein the first subnetwork is a radio network.

53. (Previously presented) The computer executable software code of claim 46 wherein nodes of the first subnetwork are in communication with each other using a first transmission medium, the first subnetwork is in communication with a second subnetwork using a second transmission medium, and wherein the first transmission medium has a lower bandwidth than the second transmission medium.

54. (Previously presented) The computer executable software code of claim 49 wherein the nodes on the first subnetwork are mobile.